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10/681,866	10/07/2003	Stephan K. Barsun	100200400-2	7397

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EXAMINER	
CHANG, YEAN HSI	
ART UNIT	**PAPER NUMBER**
2835	

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/681,866	BARSUN, STEPHAN K.	
	Examiner	Art Unit	
	Yean-Hsi Chang	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 19 is objected to because of the following informalities: The "the support member" claimed in lines 4-5 lacks antecedent basis. Appropriate correction is required.

The following rejections are based on an assumption that the support member is the first circuit board.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-19 and 26-39 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S.

Patent No. 6,728,101 B2 ('101). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 2-12 and 14-18 are identical with claims 2-17 of '101; claims 1 and 13 are identical with claim 1 of '101; and 19, 27-31, 34 and 36-37 are covered by claims 18-20 of '101.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-12, 15-18 and 41-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Bachman et al. (US 5,923,531).

Bachman teaches a card support assembly comprising: at least one support member (14, fig. 1), a plurality of printed heat generating circuit cards (18, fig. 1) having a front edge (shown in fig. 1, not numbered) and a rear edge (shown in fig. 1, not numbered), at least one flow control member (72, fig. 1) being substantially imperforate, facing the at least one support member with the cards between the at least one support member and the at least one flow control member (claim 1); wherein the flow control member is coupled to the at least one support member (claim 2); wherein the cards comprise memory cards (see col. 4, lines 64-65) (claim 3); wherein the at least one flow control member comprises a single continuous flow control member and is integrally

formed as a single unitary body (shown in fig. 1) (claims 4 and 5); wherein the plurality of cards includes a first card (18, fig. 1) providing the front edge (not numbered) and a second card (18, fig. 1) providing the rear edge (not numbered) (claim 6); wherein the plurality of cards includes a plurality of transversely spaced cards (shown in fig. 1) (claim 7); wherein the at least one flow control member is substantially imperforate in a transverse direction (shown in fig. 1) (claim 8); wherein the at least one flow control member has a substantially uniform thickness and includes deformed sheet metal (see col. 7, line 28; sheet metal is well known as with uniform thickness) (claims 9 and 10); wherein the plurality of cards includes a card having a first edge (shown in fig. 7, not numbered) proximate the at least one support member and a second opposite edge, and wherein the assembly further includes a shock absorber (74, fig. 1) coupled to the at least one flow control member (shown in fig. 1) and extending into engagement with at least a portion of the second edge (see col. 7, lines 38-48; foam is a well known resilient material) (claims 11 and 12); a gas flow source (94, fig. 9) proximate the front edge, wherein the at least one flow control member extends at least substantially proximate to the gas flow source (shown in fig. 9) (claim 15); wherein the plurality of cards includes a first card (18, fig. 1) having a first edge (shown in fig. 1; not numbered) proximate the at least one support member and a second opposite edge, and wherein the at least one flow control member has a lower surface (to the left in fig. 1) opposite the second edge and spaced less than 10 millimeters from the second edge (see col. 7, lines 40-43; since foam strips 74 of 72 is pressed against the circuit board 18, it is inherently less than 10 mm) (claim 16); wherein the at least one support member

includes at least one printed circuit board (32, fig. 1; also see col. 5, lines 19-20) (claim 17); wherein the plurality of printed circuit cards that generate heat are removably coupled to the support member (see col. 5, lines 48-53) (claim 18); and a method of assembling a card support being disclosed in the specification (claims 41-42).

6. Claims 19, 22, 24, 26-35 and 38-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Bachman et al.

Bachman teaches a computing device comprising: a first circuit board (14, fig. 1), a second circuit board (16, fig. 1) connected to the first circuit board, a plurality of printed heat generating circuit cards (18, fig. 1) coupled to the first circuit board and extending non-parallel from the first circuit board, the plurality of cards, collectively, having a front edge (shown in fig. 1, not numbered) longitudinally spaced from a rear edge (shown in fig. 1, not numbered), and at least one flow control member (72, fig. 1) facing the at least one support member with the cards between the at least one support member and the at least one flow control member, wherein the at least one flow control member is substantially imperforate from the front edge to the rear edge (shown in fig. 1) (claim 19); a processor (20, fig. 1) connected to the first circuit board (claims 22 and 24); wherein the cards comprise memory cards configured to store data (18, fig. 1) (claim 26); wherein the at least one flow control member comprises a single continuous flow control member (shown in fig. 1) (claim 27); wherein the flow control member is integrally formed as a single unitary body (shown in fig. 1) (claim 28); wherein the plurality of cards includes a first card (18, fig. 6) providing the front edge (left in fig. 6

being assumed) and a second card (20, fig. 6) providing the rear edge (right in fig. 6 being assumed) (claim 29); wherein the plurality of cards includes a plurality of transversely spaced cards (shown in fig. 6) (claim 30); wherein the at least one flow control member is substantially imperforate in a transverse direction (shown in fig. 1) (claim 31); wherein the at least one flow control member has a substantially uniform thickness (shown in fig. 1) and wherein the at least one flow control member includes deformed sheet metal (see col. 7, line 28; sheet metal is well known as with uniform thickness) (claims 32 and 33); wherein the plurality of cards includes a card (18) having a first edge (left edge of 18, fig. 1) proximate the second circuit board (shown in fig. 6) and a second opposite edge (right edge of 18, fig. 1), and wherein the device further includes a shock absorber (74, fig. 1) coupled to the al least one flow control member (shown in fig. 1) and extending into engagement with at least a portion of the second edge (see col. 7, lines 38-48) and wherein the surface is resilient in a direction perpendicular to the edge (foam is a well known resilient material) (claims 34 and 35); a gas flow source (94, fig. 9) proximate the front edge, wherein the at least one flow control member extends at least substantially proximate to the gas flow source (shown in fig. 9) (claim 38); and wherein the plurality of cards includes a first card (18) having a first edge proximate a second circuit board and a second opposite edge, and wherein the at least one flow control member has a lower surface (left in fig. 1) opposite the second edge and spaced less than 10 millimeters from the second edge (see col. 7, lines 40-43; since foam strips 74 of 72 is pressed against the circuit board 18, it is inherently less than 10 mm) (claim 39).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 13-14 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bachman et al. in view of Baik (6,466,448 B1).

Bachman discloses the claimed invention except a spacer coupled to the at least one flow control member.

Baik teaches a card support assembly (20, fig. 1) comprising a flow control member (34, fig. 4) and a spacer (58, fig. 4) being integrally formed as a single unitary body with the flow control member (shown in fig. 5), and extending between a first face (61, fig. 5) of a first circuit card (left 52, fig. 5) and a second face (61. fig. 5) of a second circuit card (right 52, fig. 5) for preventing the circuit cards from moving in a lateral side-to-side manner at the ends.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Bachman with the spacer taught by Baik for preventing the circuit cards from moving in a lateral side-to-side manner at the ends.

9. Claims 20-21, 23, 25 36-37 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bachman et al. in view of Marconi et al. (US 5,991,163).

Bachman discloses the claimed invention except an I/O board releasably connected to the first circuit board and being supporting a plurality of I/O cards, and a power supply connected to the first circuit board.

Marconi teaches an I/O board (F, fig. 1C) of a computing system, supporting a plurality of I/O cards (C1, fig. 1C) and power supply connections (E, fig. 1C) connected to the I/O board.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Bachman with the I/O board and power supply taught by Marconi for indicating the connections of an I/O board and a power supply, since both I/O board and power supply are inherent features of a computing system, and more specifically, a memory or a processing unit.

Correspondence

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFax numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang
Patent Examiner
Art Unit: 2835
September 25, 2004